

**St.Joseph's College of Engineering, Chennai 600 119**  
**Department of Mechanical Engineering**  
**Mechatronics Laboratory Equipment Details**

<b>S.No</b>	<b>Name of the equipment</b>	<b>Description of the equipment</b>	<b>Quantity</b>
1	Pneumatic trainer Kit	Actuation of single and double acting cylinder using 3/2, 5/2 DCV ,AND Gate and OR Gate Operated by Push button and Hand Lever valve	01
2	Electro pneumatic trainer Kit	Actuation of single Acting and double acting cylinder using single solenoid and Double solenoid valves operated by electrical push buttons, SPDT, Timers	01
3	Electro pneumatic trainer Kit with PLC	Continuous reciprocation of cylinder using timer counter programmed by VERSAPRO software(Ladder Diagram)	01
4	PLC/RTA Hydraulic Linear actuation system Trainer	Study of Characteristics of Hydraulic system and finding out of speed Vs Discharge, Force Vs Discharge	01
5	Servo controller for open and closed loop system	Control of servo motor for open loop and closed loop system using PLC and LABVIEW software	01

**St.Joseph's College of Engineering, Chennai 600 119**  
**Department of Mechanical Engineering**  
**Mechatronics Laboratory Equipment Details**

6	PID controller with interfacing	Control of parameters of shaft speed and temperature with P, PI, PID Control modes	01
7	DC motor speed control module	Study of characteristics of DC motor and controlling speed of motor using PID controller	01
8	Temperature control system	Control of temperature of the system using PID controller	01
9	Microprocessor controlled Stepper motor	Rotation of stepper motor controlled by microprocessor program	01
10	Multi-process Station	Study of control of process parameters like flow, pressure and temperature of the system using LABVIEW software interfaced by Data Acquisition System	01
11	Hydraulic simulation software(HYDROSIM)	Simulation of Hydraulic system using DCV's and flow control valves	05

**St.Joseph's College of Engineering, Chennai 600 119**  
**Department of Mechanical Engineering**  
**Mechatronics Laboratory Equipment Details**

12	Pneumatic simulation software(PNEUMOSIM)	Simulation of pneumatic system using DCV's and flow control valves AND GATE, OR GATE	05
----	---	---	----